

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

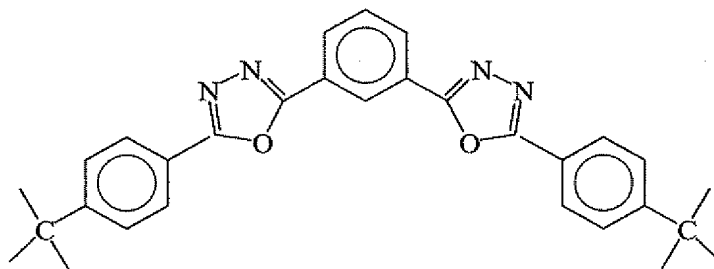
1-38 (canceled).

39. (currently amended): An organic light emitting device comprising an anode, a cathode and an emissive layer, wherein the emissive layer is located between the anode and the cathode and the emissive layer comprises an electron transporting host material doped with a phosphorescent dopant material, wherein the phosphorescent dopant material has a HOMO energy less than the ionization potential of the electron transporting host material, wherein the phosphorescent dopant material has a LUMO energy level lower than a LUMO energy level of the electron transporting host material, wherein the electron transporting host material has a lowest triplet excited state having a triplet state energy, and wherein the phosphorescent dopant material has a triplet excited state with a triplet state energy that is less than the triplet state energy of the lowest triplet excited state of the electron transporting host material, and wherein the phosphorescent dopant material is a phosphorescent organometallic complex comprising a metal species M with a bidentate mono-anionic ligand in which M is coordinated with an sp^2 hybridized carbon and a heteroatom of the ligand.

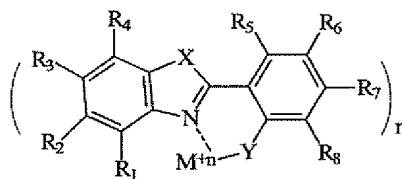
40. (cancelled).

41. (previously presented): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted oxadiazole.

42. (previously presented): The organic light emitting device of claim 41 wherein the aryl-substituted oxadiazole comprises a compound represented by



43. (previously presented): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted triazole.
44. (previously presented): The organic light emitting device of claim 43 wherein the aryl-substituted triazole comprises 3-phenyl-4-(1'-naphthyl)-5-phenyl-1,2,4-triazole.
45. (previously presented): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted phenanthroline.
46. (previously presented): The organic light emitting device of claim 45 wherein the aryl-substituted phenanthroline comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.
47. (previously presented): The organic light emitting device of claim 39 wherein the electron transporting host material comprises a benzoxazole or benzothiazole compound having the chemical structure:



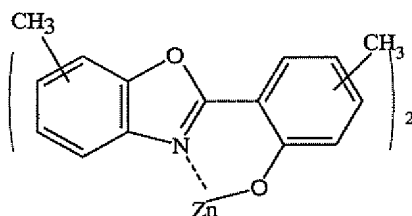
where X and Y are independently O, S;

M represents a metal;

n is a integer from 1 to 3; and

R₁ to R₈ are, independently, a hydrogen atom, an aryl group or an alkyl group.

48. (previously presented): The organic light emitting device of claim 39 wherein the electron transporting host material comprises a zinc benzoxazole compound having the chemical structure:



49. (previously presented): The organic light emitting device of claim 39 wherein the phosphorescent dopant material comprises fac-tris (2-phenylpyridine)-iridium.

50. (currently amended): An organic light emitting device comprising:

a substrate;

an anode layer over said substrate;

a hole transporting layer over said anode layer;

a first electron transporting layer over said hole transporting layer, wherein said first

electron transporting layer comprises an electron transporting host material doped

with a phosphorescent dopant material, wherein the phosphorescent dopant material

has a HOMO energy less than the ionization potential of the electron transporting host

material, wherein the phosphorescent dopant material has a LUMO energy level lower

than a LUMO energy level of the electron transporting host material, wherein the

electron transporting host material has a lowest triplet excited state having a triplet

state energy, and wherein the phosphorescent dopant material has a triplet excited

state with a triplet state energy that is less than the triplet state energy of the lowest

triplet excited state of the electron transporting host material, and wherein the

phosphorescent dopant material is a phosphorescent organometallic complex of metal

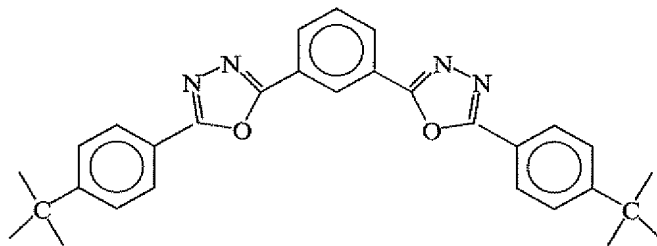
species M comprising a bidentate mono-anionic ligand in which M is coordinated with an sp^2 hybridized carbon and a heteroatom of the ligand;

a second electron transporting layer over said first electron transporting layer; and
a cathode layer over said second electron transporting layer.

51. (cancelled).

52. (previously presented): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted oxadiazole.

53. (previously presented): The organic light emitting device of claim 52 wherein the aryl-substituted oxadiazole comprises a compound represented by



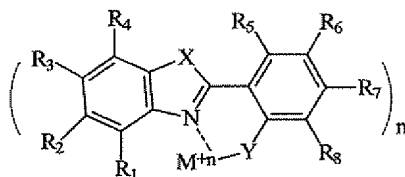
54. (previously presented): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted triazole.

55. (previously presented): The organic light emitting device of claim 54 wherein the aryl-substituted triazole comprises 3-phenyl-4-(1'-naphthyl)-5-phenyl-1,2,4-triazole.

56. (previously presented): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted phenanthroline.

57. (previously presented): The organic light emitting device of claim 56 wherein the aryl-substituted phenanthroline comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

58. (previously presented): The organic light emitting device of claim 50 wherein the electron transporting host material comprises a benzoxazole or benzothiazole compound having the chemical structure:



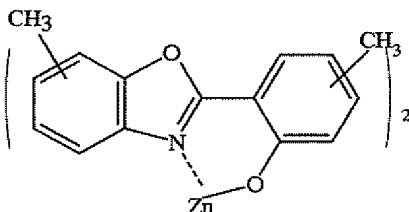
where X and Y are independently O, S;

M represents a metal;

n is a integer from 1 to 3; and

R₁ to R₈ are, independently, a hydrogen atom, an aryl group or an alkyl group.

59. (previously presented): The organic light emitting device of claim 50 wherein the electron transporting host material comprises a zinc benzoxazole compound having the chemical structure:



60. (previously presented): The organic light emitting device of claim 50 wherein the phosphorescent dopant material comprises fac-tris (2-phenylpyridine)-iridium.

61. (currently amended) The organic light emitting device of claim 39, wherein the phosphorescent dopant material is a phosphorescent organometallic complex having has the formula L₃M, LL'L"M, or L₂MX, wherein L, L', L", and X are inequivalent, monoanionic bidentate ligands; M is a metal that forms octahedral complexes; and wherein L, L', and L"

are ~~monoanionic bidentate ligands~~ coordinated to M through an sp^2 hybridized carbon and a heteroatom.

62. (previously presented): The organic light emitting device of claim 61, wherein M is a third row transition metal.

63. (previously presented): The organic light emitting device of claim 62, wherein M is iridium.

64. (previously presented): The organic light emitting device of claim 61, wherein the phosphorescent organometallic complex has the formula L_3M .

65. (previously presented): The organic light emitting device of claim 61, wherein the phosphorescent organometallic complex has the formula $LL'L''M$.

66. (previously presented): The organic light emitting device of claim 61, wherein the phosphorescent organometallic complex has the formula L_2MX .

67. (currently amended). The organic light emitting device of claim 50, wherein the ~~phosphorescent dopant material is a~~ phosphorescent organometallic complex ~~having~~ has the formula L_3M , $LL'L''M$, or L_2MX , wherein L, L', L'', and X are inequivalent, monoanionic bidentate ligands; M is a metal that forms octahedral complexes; and wherein L, L', and L'' are ~~monoanionic bidentate ligands~~ coordinated to M through an sp^2 hybridized carbon and a heteroatom.

68. (previously presented): The organic light emitting device of claim 67, wherein M is a third row transition metal.

69. (previously presented): The organic light emitting device of claim 68, wherein M is iridium.

70. (previously presented): The organic light emitting device of claim 67, wherein the phosphorescent organometallic complex has the formula L_3M .

71. (previously presented): The organic light emitting device of claim 67, wherein the phosphorescent organometallic complex has the formula $LL'L''M$.

72. (previously presented): The organic light emitting device of claim 67, wherein the phosphorescent organometallic complex has the formula L_2MX .